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PEPTIC ULCER FROM A MEDICAL STANDPOINT*

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I think it is well, occasionally, to take stock of our knowledge of certain diseases and to familiarize ourselves with the more recent investigations and advances made in these diseases. Only a few years ago it was thought that women had peptic ulcer two or three times as often as men, and that gastric ulcers were more common than duodenal ulcers. We now know that the opposite is true in both instances.

A few years ago I was working on the gastrointestinal service at St. Mary's Hospital at the Mayo Clinic and at that time 2,641 cases of dyspepsia which had come to operation were tabulated, disregarding the preoperative diagnosis; 20% of these operations were for duodenal ulcer and 5% were for gastric ulcer. Eusterman[1] says: "During 1923 there came under our observation 280 cases of chronic gastric ulcer, as compared with 1,440 cases of duodenal ulcer. So the ratio is almost 1:5." Rehfuss[2] says: "Ulcers of the duodenum affect men more frequently than women; probably in the proportion of 4 or 5 to 1." He does not, however, think the difference is so great in gastric ulcers.

Peptic ulcer is a disease of early adult life; occurring most often during the third and fourth decades, the average age being about forty. Peptic ulcers are usually single, but may be multiple, and they vary considerably in size. The newer ulcers are superficial, involving only the mucous membrane and the submucous tissue, while the older ulcers, crater-like and fibrous, extend deeply into the muscle, often to the peritoneum and sometimes through it.

It is probable that a number of factors contribute to the formation of peptic ulcers. It is now a well established fact that focal infection is an important etiological factor. Rosenow[3] in 1913 was able to produce peptic ulcers in animals by the intravenous injection of streptococci of a certain virulence. Local conditions and systemic resistance both play important parts: local nerve disturbance of a tropic character, or perhaps increased activity of the vagus. With those who live intensive lives with much nervous and mental strain and a, more or less, continued high gastric acidity there is a predisposition to ulcer formation. All factors which lower general resistance may be contributory.

At times, perhaps, the formation of peptic ulcer may be due to local disturbance of the circulation in the mucosa associated with perivascular round cell infiltration, the result of lodgement and proliferation of streptococci in the perivascular spaces and, perhaps, associated with thrombosis of small vessels resulting in the formation of areas of necrosis or necrobiosis in the mucosa where is permitted acidification of the parenchyma cells and their digestion by the pepsin of the gastric juice. Such a process of circumscribed infiltration might be analogous to the process of petechia formation which occurs in certain acute infections.

It is my conception that there are two factors conjointly active in the formation of peptic ulcer;—vascular infarction and subsequent erosion by the gastric juice. In 1853 Virchow[4] emphasized the importance of the role played by blood vessels in the production of peptic ulcer. The part played by gastroduodenitis, acute and chronic, of unknown origin, in the formation of peptic ulcers is suspected by some but is not known. So long as the circulation of the mucosa is physiological it is protected against the action of the gastric juice, but when its circulation is interfered with the gastric juice may attack it and erosion occur and such erosion may lead to the formation of an ulcer. In the process a vessel may be eroded or exposed in the ulcer, or the erosion may burst through into the neighboring viscera or into the peritoneal cavity. The ulcer may be circular, punched-out or cone shaped, or of variable form, size and position.

The diagnosis of peptic ulcer is not difficult provided the symptoms and signs run true to form. But it is not always so. Perforation may be the first thing to happen—and often times without previous symptoms. However,

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there usually is some previous history, but it may be misleading. In one of my cases—a man, age 45 years—there was an acute perforation of a small gastric ulcer, anterior and near the pylorus, and there were no symptoms of dyspepsia immediately preceding the perforation. Three years before, in Belgium, he had a diagnosis made of cholelithiasis, but after undergoing treatment for a time he became free from symptoms and had no painful dyspepsia until the perforation occurred.

A severe gastric hemorrhage may be the first thing to happen;—or collapse, shock and later tarry stools and a history may then be obtained of a painful dyspepsia which had been neglected.

A most interesting case is reported by Horsley,[5] of which the following is an abstract: "A patient of 34 years had several previous attacks of what appeared to be kidney colic; he was admitted to the hospital with an acute attack, with pain in the upper right side, in the region of the right kidney. The necropsy showed the right kidney floating in liquid containing duodenal and stomach contents. There was a large ulcer on the posterior duodenal wall, which had perforated retroperitoneally and the duodenal and stomach contents had gravitated around the right kidney and into the region of the appendix. The symptoms were at first those of kidney colic and later the symptoms ordinarily found in appendicitis."

In typical cases of peptic ulcer the history is clear cut and expressive. And it is most important in attempting a diagnosis of ulcer to obtain a reliable and comprehensive history. One must know certain things very definitely: the character of the gastric distress and the character of its relief; its exaggeration by acid fruits and coarse vegetables; its location and the time of its occurrence and, whether or not, the symptoms recur in the same manner daily; the whole length of time that gastric distress has existed, in months or years; the length of time the spells of distress have lasted, in weeks or months; the length of time between the spells, when there has been no gastric distress, in weeks or months; the seasonal variation of the spells of gastric distress; and noctural distress, before or after midnight.

The pain when localized, in typical cases, is usually slightly above and to the right of the umbilicus. The distress complained of is a feeling of fulness, pressure or weight, or a gnawing pain of variable severity. The distress appears from one to three hours after eating; it seldom appears later or earlier. It does, however, occur a little earlier in gastric than in duodenal ulcers. The pain frequently lasts until the next meal if not relieved by food or soda. If there is pyloric obstruction pain usually occurs at night. The symptoms last for a variable length of time with definite daily repetition and with food and soda relief, until with treatment and rest, the spell of painful dyspepsia terminates and then there is an interval lasting for weeks, more probably months, when the patient is free from symptoms and can eat a great variety of food without producing gastric distress.

Periods of painful dyspepsia lasting for weeks or months with periods of freedom from gastric distress lasting for weeks or months characterize the course of the disease. Eusterman[6] says: "At the Mayo Clinic the average duration of peptic ulcer was nine years." The ulcer dyspepsia, usually, has a definite seasonal variance; the attacks are more apt to come during change of season, in the Spring and in the Fall. All of this information must be obtained,—and it should constitute a historical background for the diagnostic study.

The unusual things that may happen in peptic ulcer vary the picture; a hemorrhage may occur and there may be vomiting of blood,—or there may be a sudden weakness followed in a day or two by tarry stools. A subacute perforation may occur greatly intensifying the picture of gastric distress. Or, the most feared accident of ulcer may occur; perforation into the free peritoneal cavity, with sudden excruciating pain, vomiting and collapse. Though the symptom-complex is, more or less, typical in most cases one is never justified in making a diagnosis on subjective evidence alone. It should be remembered that in some cases the history is atypical and indecisive.

In the physical examination of the patient there is not much to be learned that would definitely point to ulcer. Though tenderness on pressure is not constant, it is usually found in the epigastrium where the pain is greatest and usually over a small area. Gastric analysis, best done by the fractional method of Rehfuss, is a very valuable aid in diagnosis and it usually shows in cases of peptic ulcer a high acid curve;—and it assists in the differentiation of peptic

ulcer from gastric cancer and other dyspepsias of reflex origin.

The fluoroscope is the most valuable of all mechanical aids and the fluoroscopic examination is the most important part of the roentgen examination. One may observe on the fluoroscopic screen abnormalities of contour and motility and one may frequently visualize, indirectly or directly, the ulcer itself. In many instances one may say from the fluoroscopic examination alone that a peptic ulcer does or does not exist, but in other instances, as has been shown by VonRohde[12] and Duval[13], because of a little deformity of the duodenal bulb or of a certain degree of spasticity of the pylorus, one may be only suspicious of the presence of an ulcer.

Nearly every roentgenologist has developed his own technic. It is my practice, after finishing the fluoroscopic examination, to make three or four films, largely for a matter of record, at fifteen or thirty minute intervals; then a six hour film for gastric retention and an intestinal film the following morning. Of the six hour film for residue, Carman[7] says: "Of course it is to be understood that I do not make diagnoses on six hour retentions. However, it is a valuable contributory finding, since 95% of all residue from the meal indicate a lesion in the stomach or just beyond."

The direct roentgen signs of ulcer are more or less well known but they are sometimes difficult to elicit. In many cases this may be due to lack of experience and special knowledge of roentgen gastrointestinal work. It is my opinion that roentgen examinations of the gastrointestinal tract should be made only by those who have had special study and experience in this branch of medicine.

It is my practice to make a study of the gallbladder by the Graham technic, in all of my gastrointestinal investigations; as in differential diagnosis one of the most important things is to rule out cholecystitis. The administration of belladonna is sometimes required to relax the stomach where pylorospasm is due to reflex causes. Dyspepsia of reflex origin due to cholecystitis, appendicitis, hepatitis and constipation usually can be easily eliminated by the method of study here outlined.

In the treatment of peptic ulcer it is of first importance to control the gastric acidity. I think that those who have used the Sippy treatment and have carried out the directions of the author have met with success; it has been so in my cases. Alkalosis is a possible danger but it can be avoided if no more soda than is needed to control the acidity is administered, which is determined by a frequent analysis of the gastric contents; and if there is an occasional checking up of the carbondioxide tension. Certain modifications of the Sippy treatment are in use. Mucin is administered in conjunction with treatment by Rivers and Vanzant,[8] who seem to think that mucin is probably of great benefit in certain types of cases.

The injection of foreign proteids probably has a distinct value. I have given injections of milk in conjunction with the Sippy treatment, I believe, with good results. Martin,[9] who has written at length of the value of the administration of foreign proteid in the treatment of peptic ulcer, calls attention particularly to the effect of the injections of nonspecific milk on the pain of peptic ulcers.

The daily intramuscular injection for three weeks of 5 c.c. of Larostidin (4% solution of l-histidine monohydrochloride) seems to be a valuable form of treatment except in the older cases. Bulmer[14] gives the result of his treatment as 58% symptomatic cures with the disappearance of abnormal roentgenographic findings; 19% of symptomatic cures with persistence of some radiological abnormality; and 23% of failures.

It is now generally conceded that medical treatment should be undertaken first in all cases of ulcer; except that acutely perforating and many bleeding ulcers are surgical, as are, also, the cases which do not yield to medical treatment. And there is, also, another exception due to the danger of cancerous degeneration in gastric ulcers, which MacCarty[10] says is the most frequent form of cancer. Cancerous degeneration does not occur in duodenal ulcers. Judd[11] says: "In some cases gastric ulcer has been relieved and cured by medical treatment, but on the other hand, certain definitely operable cases of cancer of the stomach have been carried to a hopeless state by this plan, so it seems to me that radical surgical treatment should be carried out if the risk is not too great."

To prevent a recurrence, all focal disease should be eliminated. When apparent cure is accomplished and a modified diet given and alkalis continued for gastric distress, if there is any, and with the avoidance of constipation,

perhaps less tobacco, and the eradication of all focal disease it is to be expected that the patient will remain well.

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DIABETES TREATED BY RADIATION OF THE HYPOPHYSIS*

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The importance of the role of the hypophysis in the metabolism of carbohydrates and the possible bearing of this role on the etiology and treatment of diabetes mellitus has been considered in recent years.

The experimental evidence along this line we owe largely to Houssay[1] and his co-workers. They demonstrated that the glycosuria after pancreatectomy was less marked if the animals had been subjected previously to removal of the hypophysis. They also showed that large doses of an extract of the anterior lobe of the hypophysis given intravenously caused glycosuria and ketonuria in normal dogs.

Barnes et al.[2] showed that the injections of an estrogenic substance (amnioton) may suppress a possible diabetic principle in the pituitary. They evidently formulated this theory upon the evidence that seemed to show that the administration of estrogenic substance may suppress the sex principle in the pituitary.

Among the clinical observations indicating the possible role of the hypophyseal gland in sugar metabolism might be mentioned the fact that in Frohlich's syndrome the deficiency of the gland is accompanied by a considerable increase of the sugar tolerance. There is also the observation that glycosuria occurs at some time during the course of acromegaly in a fairly high percentage of the cases.

Assuming an abnormal diabetogenic action of the hypophysis in cases of diabetes, radiation of the pituitary gland, it was thought, might suppress the over-activity of the gland and have a beneficial effect on the course of the disease.

For the purpose of this study, cases of diabetes in children were selected because of the well known observation that the pancreas in juvenile diabetics reveal no constant pathologic changes. Thus, we would be dealing, as it were, with cases of diabetes not complicated by pathology in the pancreas but essentially of deranged physiology. Then, too, these juvenile patients were free from any evidence of hypophyseal pathology as far as the sexual or skeletal systems are affected by a pathologic hypophyseal secretion or tumor formation.

CASE REPORTS

Case 1.—B. T. The patient was a boy, sixteen years of age with a history of diabetes of two years' duration. The blood sugar averaged 380 milligrams per hundred cc. of blood. He had had severe attacks of coma on several occasions and one of insulin shock. His daily intake of carbohydrate was limited to 100 grams, protein 70 grams and fat 100 grams. He was on a balanced insulin dose of twenty-six units before breakfast and sixteen units after the evening meal. As in other cases of juvenile diabetics, he had to live strictly within the prescribed limits of diet and insulin but maintained a fair degree of nutrition. From January 20 to March 26, 1934, a total of 630 roentgens was given to the hypophysis on the right side of the head and 520 on the left. The factors were as follows: high tension

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at 200 kilovolts, 4 milliamperes, distance 50 centimeters, filtration one-half millimeter copper and one millimeter of aluminum.

Case II. H. M. A girl of sixteen, well developed and well nourished with a tendency to obesity. Duration of diabetes, eight years. The blood sugar averaged 440 milligrams per hundred cc. of blood. The insulin intake daily was fifty-four units, divided thirty-four units before breakfast and twenty units after the evening meal. The daily diet consisted of 90 grams of carbohydrates, 75 grams protein and 95 grams fat. Radiation of the hypophysis was carried out from January 18 to March 13, 1934, 370 roentgens were administered to each side of the head, the factors remaining the same as in the first case.

Case III. J. S. A girl, twelve years of age. Diabetes of a mild degree, duration slightly over one year. The blood sugar averaged 118 milligrams per hundred cc. of blood and the insulin five units daily and that before breakfast only. The carbohydrate intake was 70 grams, protein 60 grams and fat 100 grams. From March 14 to March 19, 1934 inclusive with the above factors, she received 150 roentgens to each temple.

With the exception of temporary improvement, irradiation has produced no lasting benefit in any of the patients. The insulin dosage has not been diminished and the hyperglycemia and glycosuria are at about the same levels as previous to the radiation. At the present time, about one year from the beginning of radiation treatment, the first two cases represent severe grades of diabetes and require an average respectively, of 42 and 54 units of insulin per day. Even with this dosage of insulin and strict adherence to proper diets, glycosuria and hyperglycemia cannot be controlled constantly. The third case is a mild one, detected less than a year ago and only requires five units of insulin per day to maintain the urine sugar free.

We realize the paucity of the number of cases treated and the fallacy of drawing conclusions therefrom. We are reporting the result of this method of treatment of diabetes with the hope of encouraging others to experiment along similar or different lines. The technique was of our own choosing and although no apparent benefit could be shown, the dosage administered was well below the limit of skin tolerance and no harm resulted.

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LUNG ABSCESS*

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Abscess of the lungs is, fortunately, a rather infrequent disease. However, the fact that when it does occur, in spite of the most advanced methods of treatment, it carries with it a mortality of from 20-60%, makes it a problem well worth considering. As one writer expresses it:

"There are few conditions which, arising often from such trivial and preventable causes as does abscess of the lung, so quickly and completely incapacitate a person, rendering him a burden to himself, his friends, and to society. The progressing weakness, the distressive cough, the long convalescence, and above all, the foul smelling and tasting sputum, break the morale of the stoutest patient and present one of the most difficult conditions to treat."

As early as the time of Hippocrates, the occurrence of lung abscess was recognized and the effects of rupture into a bronchus or into the pleural cavity noted. Since that time many methods of treatment, both medical and surgical, have been advocated and used from time to time. In spite of all the progress in treatment, the high mortality makes it a formidable disease.

The most potent factor in the causation of lung abscess is probably poor oral hygiene. Halpin, et al., report twenty cases of nontuberculous abscess of the lungs, in eight of which dental carries and oral sepsis were definite predisposing factors.

The factor next in importance is probably tonsillectomy under general anesthesia. Wessler says that 28% of 100 cases were due to tonsillectomy. Whittemore reports 17 out of 32 lung abscesses to be due to tonsillectomy. Lung abscess after tonsillectomy is usually due to faulty technique which allows blood, saliva, and material squeezed from the tonsils to be aspirated into the lungs. It also develops after tooth extraction and other operations under general anesthesia. One case studied followed operation upon the knee under ethylene. The fact that lung abscess is very infrequent after local anesthesia

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is brought out by reports of as many as 12,000 and 25,000 tonsillectomies with local anesthesia and without a single lung abscess.

Lung abscess is a rare sequel to lobar pneumonia. It does occur, however, after bronchopneumonia. One case studied came after bronchopneumonia. It also follows a small percentage of traumatic wounds of the chest. It sometimes arises by extension of infection from other organs, such as subphrenic or liver abscess.

The pathological picture of lung abscess varies all the way from the small localized abscess of metastatic origin to the extensive putrid gangrene of a large portion of a lobe. The predominant type, however, is usually a single abscess cavity which may or may not communicate with a bronchus and tends to surround itself with a fibrous wall of varying thickness.

Careful culture and smears from the sputum of a number of cases show that the organisms found in 70 to 75% of the cases are those normally found in the mouth and around the teeth, especially the oral anerobes, spirochetes, and fusiform bacilli. The remaining 25% show the more common pyogenic organisms. There seems to be a definite causal relationship between the oral anerobes and pulmonary suppuration. It is therefore probable that most lung abscesses follow the aspiration of these organisms into the lung, an occurrance that can easily take place under deep general anesthesia. This brings home forcibly the advantage of local anesthesia and careful oral hygiene as prophylactic measures against pulmonary suppuration.

Contrary to what one might expect, over half of the lung abscesses occur in the upper lobes of the lung; in some reports the incidence is two to one. More than half are found in the right lung. About three fourths of the abscesses are peripherally situated and in most of these cases the parietal and visceral pleural layers are adherent. This is very important in operative drainage of the abscess.

The most important factors in the diagnosis of lung abscess are history and x-ray. Physical examination and laboratory procedures are of less value.

The typical history is that some ten to fourteen days after an operation or in convalescence from bronchopneumonia, the patient rather suddenly complains of pain in the chest, and begins to run a septic type of temperature, sometimes with chills. At this time cough begins, and a few days later there is a profuse expectoration of foul pus. This expectoration may be so sudden and so large as to almost drown the patient in his own sputum. The disease is very debilitating and loss of weight and general malaise are generally quite marked. Clubbing of the fingers is a very frequent finding and often comes on within a week or two after the onset of the disease. Instead of the profuse foul sputum characteristic of rupture into a bronchus, there may be sudden shock and dyspnea from rupture into the pleural cavity and tension pneumothorax. This is an acute emergency and demands immediately aspiration or adequate drainage.

Physical examination will show dullness over the area involved by the abscess, but the auscultatory signs may vary all the way from those of consolidation to those of large cavities filled with fluid and air.

Sputum is usually foul in odor and purulent or mucopurulent in character. On standing it separates into three layers; mucus on top, saliva in the center, and pus at the bottom. The presence of elastic tissue fibers in the sputum is strongly suggestive of abscess. Leukocytosis in the blood varies, depending upon the acuteness of the condition. Tubercle bacilli should always be ruled out by careful study of smears from the sputum.

X-ray is the most important aid in diagnosis of lung abscess, since it not only tells us whether the abscess is present but also its location and extent. It is important to take lateral as well as anterior posterior views in order to locate the abscess with relation to the back or front of the chest wall. The distance from the abscess to the chest wall is of great value in locating the best place for surgical drainage.

Lung abscess can usually be diagnosed from the history and x-ray alone. There is no justification for aspiration through the chest wall as a diagnostic procedure. The bronchoscope is sometimes of value in locating the bronchus from which pus is coming and ascertaining whether or not there is a foreign body in the bronchus.

Prognosis in lung abscess should always be guarded. Complications, particularly abscess of the brain, are frequent and have a high mortality. An almost direct path can be traced from the left ventricle to the brain by way of the innominate and carotid arteries. This explains the high incidence of cerebral abscess complicating pulmonary suppuration.

Treatment can be divided for convenience into medical and surgical. This does not mean that the two should be sharply dissociated. On the contrary, in this disease, as in all problems in thoracic surgery it is essential that the internist, roentgenologist and surgeon work hand in hand.

Postural drainage should be tried in all cases unless the condition of the patient absolutely forbids it. This can best be done by elevating the foot of the bed to an angle of 45° three or more times a day. At first the patient should lie on each side for three to five minutes and gradually increase the time to thirty to forty-five minutes. He should lie on both sides no matter where the abscess is situated. If the abscess communicates with a bronchus, and most of them do, this allows the accumulated secretions to be evacuated. While there is no doubt that bronchoscopy is of utmost value in removing foreign bodies and washing out abscess cavities, it has yet to be shown that it is superior to postural drainage as a routine procedure.

In some cases where oral spirochetes and fusiform bacilli are found in the sputum, an intensive course of intravenous arsphenamine therapy will cause a dramatic disappearance of symptoms. Unfortunately it works in only a few cases.

Artificial pneumothorax is of value sometimes in centrally located abscesses where the pleural layers are not adherent and the abscess communicates with a bronchus. Practically complete collapse must be obtained and maintained for from three to five months. Routine use of pneumothorax for lung abscess is a dangerous procedure. Unless carefully done in selected cases it may easily cause rupture of the abscess into the pleural cavity or into the mediastinum.

The mortality from lung abscess treated with medical procedure alone ranges from 40 to 60%. The great danger in medical treatment is prolonging the treatment after surgery is indicated.

Indications for surgery in lung abscess are:

1. When improvement is not marked after 3 to 6 weeks of careful medical treatment with postural drainage.

2. In cavities with very thick walls early operation is indicated.

4. To remove foreign bodies in abscess cavities that cannot be reached with the bronchoscope.

5. If rupture into pleura or mediastinum occurs.

Surgery is most successful in peripherally located abscesses where the pleural layers are adherent. Operation is best done with local anesthesia, but gas-oxygen anesthesia can be used if necessary.

The incision is made diagonally across the ribs overlying the abscess and a portion of one rib resected subperiosteally. If the pleural layers are now seen to be adherent the operation can be continued. If the pleural layers are not adherent the pleura may be opened at this stage accidentally and collapse of the lung takes place. In this event the lung should be quickly palpated to locate the abscess and the lung then reinflated either by instructing the patient to strain or using positive pressure anesthesia. The wound in the pleura can be then closed with suture and packing. If the pleural layers are not adherent and the pleura is not opened accidentally, it is better to pack in iodoform gauze to promote adhesions, close the wound and finish the operation at a second stage about a week later. The pleural layers being now adherent, an aspirating needle is inserted directly into the lung and the abscess cavity located by aspirating air and pus. When the abscess cavity is located it can be opened into, either with the finger, electric knife, or scalpel. Enough of the outer abscess wall along with the overlying ribs and muscle should be removed to allow careful inspection of the whole abscess cavity for the presence of side pockets of pus. If these are found they should be connected with the main cavity. The danger lies not in making too large an opening into the abscess but in making too small a one that will later contract and hinder adequate drainage. The abscess cavity should be packed with strips of vaseline gauze or loose drains and the edges of the skin wound sutured loosely about the drains. Postoperatively, the wounds require frequent dressings and careful inspection of the abscess cavity. Patients may be up and about as soon as they recover from the immediate effects of the operation. Most cases will drain at least a month but in chronic cases it is essential to keep the drainage tract open for from three to six months or longer. In any event a small draining sinus is much to be preferred to a large putrid abscess.

The general mortality from surgical treatment runs around 20 to 40%. It is practically always much lower than that from medical treatment alone and this in spite of the fact that the cases that come to surgery are almost always cases that have not been benefited by medical treatment. In this disease, close cooperation be-

tween internist and surgeon is essential, and early diagnosis and early operation will give the best ultimate results.

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ACUTE AND CHRONIC DISEASES

An Appreciation of Thomas Sydenham's Book.

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DeLand.

It may seem as if one more paper on such a well-known and much-written-of personage as Sydenham were unnecessary, and perhaps it is, but at the present time with an increasing interest in medical history it seems well to recall him and some of the interesting aspects of his book. In dealing with by-gone men we are too apt to dwell on their lives and their chief fame to glory, forgetting and omitting much of their ordinary knowledge and activity. It is as true today as in 1809 when Rush wrote: "The works of Dr. Sydenham are singular, in being alike celebrated and neglected by modern physicians." We all pay homage to Dr. Sydenham, but not many of us have read his book, or even his more famous treatises such as the ones on the gout, rheumatism and erysipelas. His book is well worth reading, not only for pleasure, but for instruction, though we need not go as thoroughly into it as he would wish: "If a man will give them a single reading, I am sorry that I should be the means of making him lose his time, but if he will peruse them often and commit them to memory, I daresay he will reap such advantages from them as may in some measure equal my wish and the great pains I have been at, in making and compiling them." If, however, one would read the clinical history of the gout which has never been excelled, or the symptoms and signs of the venereal diseases described superbly or an excellent description of rheumatic fever and its various forms, then one should consult Sydenham. His descriptions are exceedingly accurate and detailed, and better, they are clear and lucid, written in an easy and serious style.

The preface to the book is perhaps the most revealing part of the book as far as helping us to understand his philosophy and theory of practice for the body of his work is almost wholly descriptive. "A disease," he says, "is no more than a vigorous effort of nature to throw off the morbific matter." How closely does modern pathological teaching echo this when it insists on the theory of tissue response to injury, and the corollary of this that nature is the cure is also emphasized by his statement: "Nature alone terminates distempers, and works a cure with the assistance of a few simple medicines, and sometimes even without any medicine at all." He understood the physician's role and decried against the cant and hypocrisy of his profession which sought to have itself considered superhuman and endowed with magical powers. As a result he insisted, persistently, pugnaciously and vehemently on observation, close observation of disease, both as it manifested itself and how it varied after treatment so as to arrive at a knowledge of the true history and constitution of the various illnesses that man can experience. His writings reveal that this was his crusade. In his answer to Dr. Robert Brady, Regius Professor of Physic at Cambridge, he writes in 1680: "For the lives of men are but too much trifled with: on the one hand by empirics, who are ignorant of the history of diseases, and the method of cure, and only provided with receipts; and on the other hand by such idle pretenders as rely wholly upon theory. . . . But that method of practice, and that only will relieve the patient, which deduces the indications of cure from the symptoms of diseases, and afterwards confirms them by experience." These thoughts are echoed in various of the treatises and in the preface, and though too often accompanied by protestations of Sydenham's humbleness and complete disinterest in the personal side of his crusade, yet we cannot doubt his sincerity. He was no less careful in the observation of his therapeutics and the results. He insisted that any treatment given should have some reasonable basis for its use and that the effects of a drug could only be known by close observation. The mere fact that a patient recovered was not for him reason enough to suppose that his medicine or regime had been the fault. "For the appearance or aspect of a disorder," writes Sydenham, "often varies according to the

different method of cure, some symptoms being rather occasioned by the physician than by the disorder itself." How true this is even today! How many symptoms are suggested by the physician and then relieved by suggestion as equally unintentional and the credit given overenthusiastically to some drug or pet prescription. He continues: "If any symptom, properly suiting their hypotheses, does in reality belong to the disease they are about to describe, they lay too much stress upon it, as if nothing more were wanting to confirm it, whereas, on the contrary, if it does not agree with their hypotheses, their manner is, either to take no notice at all of it, or but barely to mention it." How many by the pernicious use of barbiturates occasion symptoms which change the complexion of the disease picture or give us symptoms on which we base the diagnosis when the trouble in reality is something entirely different. Empiricism, lack of observation, a total inability to conceive of control experiments in the use of new drugs and techniques are not such strangers in our midst as to make Sydenham's pronouncements merely interesting historical reading. The lesson to be learned from this father of English medicine is that which has recently been so well taught by Blumer. Bedside diagnosis, close observation first before any interpretation or theorizing, is the essential lesson to be learned by the student before he can hope to become a clinician in the sense which that term has when applied to such men as Sydenham, Osler, Thayer, Rolleston and Blumer. Consider the keenness of Sydenham's observation when he says in his treatment of venereal diseases: "I do not depend much on injections into the urethra, because they ordinarily do much more mischief than service, either by their pungent acrimony or their stypticity; however, towards the declension a small quantity of rose water may be injected." He was always seeking to improve his therapeutics and realized that much of the medicine prescribed was of doubtful value. He considered that for each disease there was some particular remedy and it speaks for his advanced knowledge and intelligence that sought specifics. "It is nevertheless to be wished that the cure might be shortened by means of specifics (if any such medicines can be discovered) . . . the Peruvian bark being the only one we have." Only by observation can one interpret. This is the essence of Sydenham. It is to be regretted, perhaps, that he was not more inquisitive in searching for these specifics or developing new medicines, but we must remember that the spirit of research was not yet then developed far and that by nature Sydenham was an observer rather than an experimenter. He says: "And it is manifestly impossible that a physician should discover these causes that have not at least correspondence with the senses, so neither is it necessary," reflecting perhaps his disinclination to seek further than what could be seen on the surface. He does say that he has spent some years on "researches," but these researches were more to prove a preconceived notion, namely that medicines of plant origin were the best because minerals differed too much from the human and drugs derived from animals were likely to resemble human elements too much to be of value. He leaves us no data or conclusions so that it is only a matter of conjecture what these researches were.

The examination of one of his clinical histories is perhaps the clearest way of understanding the thoroughness and carefulness of his descriptions. It is to be remembered, of course, that these descriptions may not seem remarkable today but that they must be evaluated in their true light by imagining ourselves with him on his rounds. Picture yourself dressed in the grand style, no stethoscope, no light, no percussion experience, no ophthalmoscope, no knowledge of the history of the mosquito and the disease now called malaria. Indeed, the only instruments you possess are your finger tips, your eyes, ears and nose. Armed with these and your highest dignity you are allowed to go with Dr. Sydenham as he goes to see one of his patients suffering from the intermittent fever of the year 1661. His lecture heard at the bedside would be as he wrote it. "All intermittents, in general, begin with a chilness and shaking, which are soon followed by heat, and then by sweat. The patient usually vomits both in the cold and the hot fit, complains of great sickness, is thirsty, his tongue dry. And these symptoms abate in the same degrees as the sweat increases, which becoming more copious ends the fit. And now the patient continues tolerably well till the fit returns at the usual time; which in a quotidian happens once in the space of twenty-four hours, or a natural day; in a tertian every other day; and in a quartan, every third day, calculating from the beginning of one fit to the beginning of the next. But the two latter are frequently doubled, so that a tertian comes every day, and a quartan two days successively, the

third being the intermediate, or well day; and sometimes when it proves a triple quartan, it comes three days successively, the intermittent deriving its name from the manner of its first appearance." Can we improve this description in spite of our knowledge of the various phases in the life cycles of the various malarial parasites? Will anyone care to attempt a better description of pain than is found in the treatise on the gout? "The patient goes to bed, sleeps quietly until about two in the morning, when he is awakened by a pain, which usually seizes the great toe, but sometimes the heel, the calf of the leg, or the ancle. The pain resembles that of a dislocated bone, and is attended with a sensation as if water just warm were poured upon the membranes of the part affected." Such description, such careful history-taking has not often been seen even today when we have the five and ten page histories such as are seen at the Peter Bent Brigham and Johns Hopkins. It seems strange to me that with all the emphasis placed on the history as it is in the medical schools today more time isn't spent on teaching one to write a history. What better way of teaching such writing than by exposing the student thoroughly to the meticulous choice of words and uncanny sense of sequence of thoughts which Sydenham displays. Consciously Sydenham proclaims: "Observe." Unconsciously he shows us how to see what we do observe.

What then was Sydenham's philosophy? What was his guiding plan of life? From his medical writings we, of course, can gain no insight as to what he thought of his age, what life meant to him and what his relation to the mysterious infinity of nature was. Perhaps he had no deep philosophy as this, but we do know that he was suspicious of philosophy and philosophical systems. He says: "But though all hypotheses founded in philosophical reasonings are quite useless, since no man is possessed of intuitive knowledge, so as to be able to lay down principles as he may immediately build upon, yet when they result from facts and those observations only which practical and natural phenomena afford, they will remain fixed and unshaken." One may argue with Sydenham, as would Bertrand Russell, as to what constitute facts, and is knowledge built on fact after all any more definite than intuitive knowledge, but we can at least understand the purpose of the whole book and the main current of Sydenham's daily thinking by means of this passage. Sydenham wanted facts. In a day when new facts were being discovered and the falsity of life and living shown more glaringly with each discovery, he stood out and cried for facts. He insisted that one couldn't treat a disease until one knew by fact what constituted that disease, and similarly he must have felt that all of life should first be defined by fact before one could live without feeling oneself in a false position. He cried out against idle speculation in a day when idle speculation for the pleasure of speculation was not only the fashion but also the authority of things temporal, that is, factual. He protests thus: "There is likewise a kind of men, who out of vain affectation to pass for persons of superior understanding, plague the world with speculations that do not in the least contribute toward the cure of diseases, but rather tend to mislead the physician than to direct him. . . . Whence, though a man may become as wise as his state will allow, yet no one will attain to be a philosopher, at least in the degree that great name imports." Sydenham is a crusader; his desire is to improve knowledge, the medical knowledge of his time. He is a vehement crusader, as his book shows to anyone who will read it thoroughly. He is as vociferous if not as continuous as Carlyle in urging us to rid our minds of cant. Observation and interpretation on that observation only is truth. This it seems to me is the purpose of Thomas Sydenham's book.

Sydenham was not a genius. He was not remarkable for intellectual or philosophical attainments. He discovered nothing new. He invented no microscopes, stethoscopes, sphygmomanometers. He made no discoveries of the human body by dissection. He developed no new concepts as asepsis by studies of fermentation; he made no attempts to seek for the causes of disease, yet he remains one of the great figures of medicine. Why is this so? What has he left us that should make him so remarkable? Is the mere fact that he left a book full of clear descriptions of the ills man is heir to sufficient reason for his exaltation? The answer lies in his having left us method. No one has ever surpassed him in the methodical, careful and complete picturing of disease which depended on the close observation both of the patient and his story. This then is the great secret of Sydenham's fame. He left to the future the secret of bedside diagnosis. He maintained his intellectual honesty over vanity and the acrimony of his contemporaries, and only

by maintaining intellectual honesty can a method be developed. So let us close with his own definition of his method. "But all the philosophy of a physician consists in searching into the history of diseases, and applying such remedies as experience shows to be curative thereof; observing, as I mentioned elsewhere, the method of cure, which right reason, founded on the trite and natural way of thinking, and not vain speculation, points out."

THE BLACK WIDOW SPIDER

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The object of this paper is to create more interest in a subject about which very little is known generally. Although the author has seen four cases of Black Widow spider bite, credit for the bulk of scientific observations and facts herein contained must of necessity go to earlier and more experienced observers. Among human beings the bite of the Black Widow spider is an element of increasing danger, well worthy of earnest consideration and study.

Bogen reports seventeen deaths from among 380 cases, a mortality rate of four and one-half per cent. Others, however, claim the mortality rate to be lower.

The Black Widow spider, or Lactrodectus Mactans, sometimes called the "Shoe-button" spider, is found in all parts of the United States but prefers the southern climate. It is probably the only poisonous spider in this country. The female of the species is about one-half inch in length and has a black, shiny body, almost metallic in appearance. There is a small, hour-glass shaped marking on the under surface which varies in color, according to age, from yellow to deep red or scarlet. The male is smaller, of lighter color, with white stripes on the body, and is harmless. When his function is performed he is eaten by the female. After the female has hatched her brood she promptly dies and her body juices serve as food for her young which may number from 50 to 500. However, it is unusual for more than a very few of these to reach maturity as the majority are devoured by their brothers and sisters.

The web of the Black Widow spider consists of straggly, uneven, coarse viscous threads running in all directions, in all three dimensions, with none of the geometric exactitude or beauty of the webs of harmless spiders. This is perhaps due to the fact that the web is used mostly as a support for the spiders. The author has observed these spiders making use of a strand of the web as a means of transportation in the following manner. With one end of the strand attached to a limb of a bush the spider suspended at the free end is swung in the breeze until contact is made with some nearby object. The chief use of this sticky, viscous web substance, however, is for the purpose of entangling the spider's victim prior to devouring it. In doing this the Black Widow skirts its insect victim several times while constantly throwing out strands of web until the insect becomes helplessly enmeshed. Then comes the almost instantly fatal bite which is followed by the sucking out of the tissue juices.

The Black Widow may be found in any place or part of fields and wooded sections, but what chiefly concerns us is that in and around human habitations it is usually found in dark corners of sheds, barns, garages, and outdoor privies. Approximately half of the bites reported have occurred in privies and usually the bites occur at night and naturally more frequently it occurs in males. Of the four cases seen by the author two were bitten at night and two in daytime. The bites occurred on the hand, the buttock, the foot, and the toe.

The venom apparatus consists of a pair of glands situated one on each side of the anterior part of the cephalo-thorax, from each of which a duct leads to a small opening near the tip of the chelicera of the same side. This opening is so placed that it is not closed by the pressure of the bite, but allows the venom to flow into the wound. It is an oily, translucent, lemon-yellow liquid having an acid reaction and a hot bitter taste. It is a non-hemolytic protein poison which primarily affects the peripheral nerves.

The venom is even more toxic than that of the poisonous snakes and, in many ways, the symptoms of spider poison resemble those produced by the venom of poisonous snakes. The marked effect on the nervous system produced by the bite of the Black Widow indicates that the venom of these insects resembles that of the cobra more nearly than the venom of the rattlesnake or moccasin.

It is believed that all parts of the spider contain a toxalbumen which is mixed with the secretion of the poison gland, that the secretion from the poison gland produces only local symptoms, while the general symptoms are due to the presence of this toxalbumen. It is because of this

toxalbumen that the bite of the Black Widow is so severe as to occasionally cause death in human beings. It contains an hemolysin called arachnolysin which causes a destruction of the red blood cells of human beings, rabbits, and mice, but does not affect the red blood cells of horses, dogs, sheep, and guinea pigs. Some authors question whether the nervous symptoms following spider bite may not be due to changes in the blood rather than to a direct toxic effect on the nerve tissue.

Some very interesting experiments upon both small animals and human beings have been conducted. The macerated glands of one female spider have been mixed with ten drops of distilled water and injected into a cat subcutaneously. In about five minutes a series of clonic convulsions set in, quickly followed by tonic spasms and death within ten minutes. A quantity of eggs of the Black Widow spider were macerated and mixed with ten cubic centimeters of water which, when injected subcutaneously caused the death of a cat in three minutes. A rabbit died as a result of the same experiment in two and one-half minutes. One experimenter took a quantity of powdered virus prepared from macerated glands of the spider and experienced a chain of symptoms identical with that of the bite of the insect.

The American Indians rank the bite of the Black Widow spider with that of the rattlesnake. The method used in poisoning their arrows was to rub the tip of the arrow in the body juices of a macerated Black Widow spider.

The diagnosis of arachnidism depends upon:

1. History of exposure to, or actual experience of, the bite. There is usually no visible lesion at site of bite.

2. Pain, starting usually at site of bite, and extending to the larger muscles, particularly of the abdomen and chest. The pain is excruciating and agonizing, and is usually continuous. The victim writhes and groans constantly.

3. Respirations are shallow and labored.

4. There is a board-like rigidity of the abdominal muscles. Rigidity may be noted in the intercostal muscles, muscles of the back and in the leg muscles. Due to the abdominal rigidity, spider bite must be differentiated from acute surgical conditions of the abdomen.

5. An increase of from twenty to forty mm. in the blood pressure, hyperactive reflexes, and increased intraspinal pressure, are usually noted.

6. Increased body temperature, slow pulse, and a polymorphonuclear leukocytosis are noted.

7. Profuse perspiration, restlessness and anxiety, tossing in agony, nausea and vomiting, priapism and urinary retention are often seen.

8. Edema of the eyelids is one of the most pronounced and characteristic signs.

9. Constipation is always present.

10. Cyanosis, delirium, prostration or shock, insomnia, disturbance of speech, paralysis, convulsions, a macular skin eruption, chills, vertigo and jaundice may occur.

The acute symptoms last from a few hours to a few days but marked general muscular weakness and extreme nervousness usually persists for weeks after the bite. Shooting pains through the body and pelvis are also present. Many cases have been known to require from six to eight months to fully recover.

Treatment. In considering the treatment the most important phase is, of course, preventive. Efforts to rid the community of this insect by destroying the web, killing the spiders, etc., should be resorted to since treatment of the bite is mostly palliative. Large doses of morphine give remarkably little relief. Powerful sedatives and hypnotics are indicated. Hot compresses and hot baths give some relief. Spinal puncture is recommended as the most positive way of giving immediate and real relief. Intravenous injections of a ten per cent solution of magnesium sulphate have been known to help. Convalescent serum has consistently given substantial relief if injected almost immediately. Sodium amytal intravenously (15 gr.) produces complete muscular relaxation and sleep. This of course lasts only for eighteen or twenty hours, when the dose should be repeated.

Spider bite poisoning is a self-limited condition and usually clears up in a few days or weeks. However, it is too often fatal. It is probable that a small percentage of the deaths reported have been due to injudicious treatment. There is no indication for stimulants such as caffeine, strychnine, alcohol, and adrenalin. There is seldom any indication for local treatment, other than hot compresses, due to the fact that the venom is so rapidly absorbed. However, if seen early, tincture of iodine may be applied to the skin at the site of the bite.

An antivenin prepared from the blood of sheep is used extensively in Brazil and is giving excellent results. In Americ an antivenin prepared from the blood of rats is being used.

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OUR NEXT STATE MEETING

A BIG BOAT—A BIG CROWD—A BIG TIME

As a result of the selection by the House of Delegates at our State Medical Meeting, we are to meet next year aboard ship. We are sailing from Miami aboard the palatial Steamship Florida of the P. & O. Steamship Company and cruising around in the beautiful waters of the Bahama Island region, spending a half day ashore in Havana. The ship is ideal for such a meeting with all outside state rooms, spacious decks, beautiful lounges, ample convention space, equipped with loud speakers, and all of the other conveniences and attractions afforded by the best hotels. There will be plenty of time for business and scientific meetings and ample opportunity for amusements. There will be card games, music by an orchestra, teas, deck games, treasure hunts, etc., for those of our wives who enjoy them and, for those who do not, a wonderful opportunity to lounge in comfortable deck chairs, knit, crochet, watch the flying fish, and chatter. There will be deep-sea fishing, deck games and golf in Havana for the men.

The plan is to leave Miami at 7:00 p. m., have supper aboard ship, remain out for three nights and two days, and to arrive in Miami on the morning of the third day with breakfast aboard ship. Provisions will be made to take your car at the dock in Miami, store it and deliver it to you at the dock on your return.

Last, but not least, this grand trip is to cost only $32.50 per person for boat fare which will include everything on the boat—that is—*nearly everything*. Of course, if you must take along more money, the bar will be open and a chute will be connected with the storage so that any party assembled in the bar will have no trouble in disposing of any of their number who might become boisterous.

PLAN NOW TO BE THERE

PLAN NOW TO BRING YOUR WIFE

LET'S ALL BECOME BETTER ACQUAINTED AND BETTER FRIENDS. ABOARD SHIP IS A FINE PLACE TO ACCOMPLISH THIS.

Announcements by the Committee on Arrangements and advertisements by the Steamship Company, showing pictures of the boat and plans of accommodations, appear in this Journal. Be sure to look them over.

LAY MEDICAL EDUCATION

For a number of years there have appeared every day in the daily papers articles written by doctors, supposedly for the purpose of informing the layman on medical subjects. While for the most part these writings deal with simple subjects and are fairly understandable to the average intelligent Doctor of Medicine and a very limited number of laymen, the fact remains that a considerable number of them deal with material that is yet in the experimental stage, or is of questionable accuracy.

The layman, whether it be out of idle curiosity or for purposes of self-diagnosis, is thirsty for information pertaining to Medicine or its allies and is consequently extremely gullible. He, however, does not possess the fundamental knowledge of anatomy, physiology and so forth which is a prerequisite to intelligent thought on, or interpretation of, any scientific medical subject. He, therefore, most frequently misinterprets the statements, whether they be established facts or not and is either left in a state of mental quandary over the matter or is convinced that the condition described is just exactly like his, a state that encourages self-medication.

There is no possible way to educate the layman in matters medical without first teaching him the fundamentals that it took you doctors years to learn, never to master. The layman should not be educated in medical matters but should be encouraged to seek the counsel of his medical advisor and be governed accordingly.

GRADUATE SHORT COURSE FOR DOCTORS OF MEDICINE IN FLORIDA JUNE 24-29, 1935

ADMINISTRATIVE OFFICERS

John J. Tigert, President, University of Florida.
B. C. Riley, Dean, General Extension Division.
Herbert L. Bryans, President Florida Medical Association.
Homer L. Pearson, Past President, Florida Medical Association.
Shaler Richardson, Secretary-Treasurer, Florida Medical Association.
W. K. Mitchell, Secretary, Institutes and Short Courses, General Extension Division.

COMMITTEE REPRESENTING THE FLORIDA MEDICAL ASSOCIATION

Dr. T. Z. Cason, Jacksonville, Chairman.
Dr. G. C. Tillman, Gainesville, University Physician.
Dr. W. H. Spiers, Orlando.
Dr. Warren Quillian, Coral Gables.

General Information

The Graduate Short Course for Doctors of Medicine in Florida will be held at the University of Florida June 24-29. This is the third annual course conducted by the General Extension Division in cooperation with the Florida Medical Association. The program of instruction was arranged by a committee of doctors appointed by the President of the Florida Medical Association. The purpose of the Course is to give the doctors of Florida an opportunity to keep up with the latest discoveries in the field of medical science through direct contact with leading specialists of the country.

REGISTRATION

The committee representing the Florida Medical Association will collect a registration fee of $5. This is the only expense in connection with the course. It is requested that the fee accompany the registration and that all doctors who expect to attend the Short Course register in advance in order that adequate accommodations may be arranged.

OTHER EXPENSE

Special rates will be made by the Gainesville hotels. Lodging may be secured near the University campus for $1 per day. The University cafeteria will serve meals for $.80 per day.

INFORMATION DESK

The information desk will be situated in the lobby of the P. K. Yonge Laboratory School. Immediately upon arrival in Gainesville, doctors are requested to report to the information desk where instructions for the week will be given.

LABORATORY AND EXHIBITS

The Florida State Board of Health will set up a model laboratory and give instruction on laboratory technique. There will be exhibits by the Florida Radiological Association on Roentgenology and the Florida Tuberculosis and Health Association on Tuberculosis. Exhibits will be in charge of specialists throughout the week. Two recess periods in each day's program have been set aside during which the doctors may visit the exhibits and enjoy recreation.

CHANGE IN FACULTY AT SHORT COURSE

Dr. Arthur M. Shipley, who was originally announced as the teacher of the course in Surgery at the Graduate Short Course, has found it impossible to be present. At his suggestion the committee invited Dr. Charles Reid Edwards, Professor of Clinical Surgery at the University of Maryland, to present the course. In recommending Dr. Edwards, Dr. Shipley wrote as follows:

"He . . . is a seasoned operator and an excellent teacher. He is interested in all phases of general surgery, but has been paying special attention to the use of radium in cancer. He is a member of the Southern Surgical and of the Society of Clinical Surgery. He went through all stages of the house officer staff in the University Hospital after his graduation, saw service in France with the Twenty-Ninth Division and was in charge of a team working in an advanced hospital. He is Chief Surgeon of the Western Electric Company in Baltimore and does about as much teaching in the Surgical Department of the University of Maryland as I do."

PROGRAM OF GRADUATE SHORT COURSE, JUNE 24-29, 1935

Hours	Monday, June 24	Tuesday, June 25	Wednesday, June 26	Thursday, June 27	Friday, June 28	Saturday June 29
9:00-10:00	Pediatrics Casparis	Medicine Bethea	Pediatrics Casparis	Gynecology Novak	Gynecology Novak	Surgery Edwards
10:00-11:00	Obstetrics Adair	Obstetrics Adair	Obstetrics Adair	Surgery Edwards	Surgery Edwards	Gynecology Novak
11:00-11:30	Recess	Recess	Recess	Recess	Recess	11:00-12:00 Orthopedic Surgery Campbell
11:30-12:30	Medicine Bethea	Pediatrics Casparis	Medicine Bethea	Orthopedic Surgery Campbell	Orthopedic Surgery Campbell	
12:30- 2:00 Lunch hour Round-table Discussion	Chairman: Casparis	Chairman: Bethea	Chairman: Adair	Chairman: Edwards	Chairman: Novak	12:00- 1:00 Surgery Edwards
2:00- 3:00	Obstetrics Adair	Obstetrics Adair	Venereal Diseases Wenger	Gynecology Novak	Surgery Edwards	
3:00- 3:15	Recess	Recess	Recess	Recess	Recess	
3:15- 4:15	Medicine Bethea	Pediatrics Casparis	Medicine Bethea	Surgery Edwards	Gynecology Novak	
4:15- 5:15	Pediatrics Casparis	Medicine Bethea	Obstetrics Adair	Venereal Diseases Wenger	Venereal Diseases Wenger	
8:00-		Alachua Co. Medical Soc. Smoker: Symposium, Malaria		Lecture on Social Diseases Wenger		

EVENING MEETINGS AT SHORT COURSE

During the week of the Short Course, two evening meetings have been arranged which are considered of value. On Tuesday evening, at eight o'clock, the Alachua County Medical Society has scheduled a smoker which will be followed by a symposium on "Malaria." Dr. Mark F. Boyd, Rockefeller Foundation research worker stationed at Tallahassee, will open the program with a paper on the etiology of the disease. He will be followed by Dr. T. H. D. Griffitts, of the United States Public Health Service, who will speak on the distribution of malaria in Florida. Dr. O. W. Bethea of Tulane University, who will be presenting the course in Medicine at the Short Course, will have the final paper, discussing the treatment of malaria. Following the presentation of the papers there will be a round table discussion of malaria in all its aspects, in which all present will be asked to participate.

On Thursday evening, Dr. O. C. Wenger, Medical Officer in Charge, Hot Springs National Park, will lecture on "Venereal Diseases." This meeting will be open to the general public and Dr. Wenger's paper will be planned with this in mind.

BIOGRAPHICAL SKETCHES OF PHYSICIANS GIVING SHORT COURSE

Dr. Horton Casparis

Dr. Horton Casparis, Professor of Pediatrics at Vanderbilt University Medical School, is returning this June to present the course in pediatrics. Dr. Casparis will be remembered as the lecturer in this subject last year. Dr. Casparis received his A. B. degree from the University of Texas and his M. D. degree from Johns Hopkins Medical School, where he spent five years on the pediatric service following his graduation. After a year in the clinics of Europe he went to Vanderbilt University as head of the Department of Pediatrics.

Dr. Casparis' especial interest has been tuberculosis for the past fifteen years. He has talked on the subject in many sections of the United States. He has taken an active part in helping groups in various sections of the country, chiefly the South, organize their work in the prevention and control of tuberculosis. He is a consultant in all of the work done in Tennessee by the State Health Department and by the Tennessee Tuberculosis Association.

Dr. Charles Reid Edwards

Dr. Charles Reid Edwards of Baltimore, who will present the lectures in Surgery at the Short Course, graduated from the University of Maryland in 1913. From June, 1917, to June, 1919, he served in the United States Army.

Specializing in general surgery and radium therapy, Dr. Edwards is on the staff of the University Hospital, Union Memorial Hospital, Church Home and Infirmary Hospital, and Woman's Hospital. He is Professor of Clinical Surgery at the University of Maryland.

Dr. Edwards is a member of the Southern Surgical Association, the Society of Clinical Surgery, and the American College of Surgeons.

Dr. Fred Lyman Adair

Dr. Fred Lyman Adair, chairman of the Department of Obstetrics and Gynecology and Chief of Service at the Chicago Lying-in Hospital at the University of Chicago, will give the course in obstetrics at the Third Annual Short Course for Doctors of Medicine, to be held in Gainesville, June 24-29. Dr. Adair was born in Anamosa, Iowa, where his father was a practicing physician. He received his B. S. and M. A. degrees from the University of Minnesota and his M. D. degree from Rush Medical School, 1901. Following his internship at Michael Reese Hospital, Chicago, he carried on a general practice in Minneapolis until 1908, when he took graduate work at Charité Hospital, Berlin, Germany. Since that time he has specialized in obstetrics and gynecology. From 1905 to 1929 he was Professor of Obstetrics and Gynecology at the University of Minnesota. In 1929 he left Minnesota to go to Chicago Lying-in Hospital as Professor of Obstetrics and Gynecology. He was made Chairman of the Department of Obstetrics and Gynecology and Chief of Service at the Chicago Lying-in Hospital in 1931. He served as Chief of Obstetrics and Gynecology Service of Minneapolis General Hospital, Asbury Methodist Hospital, and Swedish Hospital.

Dr. Adair served one year in the World War with the American Red Cross in France and Belgium. He was instrumental in establishing prenatal work in Paris and in establishing the Service Medical Social de Maternite in Paris.

Dr. Adair is a member of the following organizations: Delta Upsilon; Nu Sigma Nu; Sigma Xi; Minneapolis Academy of Medicine; American Medical Association; American College of Sugeons; American Association of Obstetricians, Gynecologists, and Abdominal Surgeons; Obstetrics Advisory Committee Children's Bureau U. S. Department of Labor; Editorial Committee American Journal Obstetrics and Gynecology; Chicago Medical Society; Chicago Gynecological Society; University Club of Chicago; Olympia Fields Country Club; Past President, Chicago Gynecological Society; Former Treasurer, American Gynecological Society; Former President and member Hennepin County Medical Society, Minneapolis, Minnesota; Former Secretary and Chairman, Section of Obstetrics, Gynecology, and Abdominal Surgery, American Medical Association; Former Chairman, Committee on Prenatal Maternal Care, White House Conference on Child Health and Protection.

Vice President, American Board of Obstetrics and Gynecology; President, American Gynecology Club; Chairman, American Committee on Maternal Welfare; Chairman, National Committee on Federal and State Legislation on Birth Control.

He is the author of numerous articles dealing chiefly with obstetrics and gynecology in various medical journals and co-author of "Obstetric Medicine" with Dr. E. J. Stieglitz.

REPORT OF COMMITTEE ON TUBERCULOSIS AND PUBLIC HEALTH

Your Committee on Tuberculosis and Public Health, appointed May 17, 1934, has held two meetings in person and two by mail.

The Committee has:

(1) Sponsored tuberculosis exhibits at the Graduate Short Course for Physicians, University of Florida, June 25-30, 1934. This exhibit included:
   (a) Latest periodicals, pamphlets and publications on tuberculosis.
   (b) P.P.D.—new standardized product for tuberculin testing—sponsored by the Committee on Medical Research of the National Tuberculosis Association, the United States Public Health Service and others.
   (c) Tuberculin Testing Demonstrations.
   (d) X-ray Films demonstrating various tuberculous conditions.
   (e) Pneumothorax Demonstration.

(2) Sponsored a similar exhibit at Seventh Annual Conference of the Florida Tuberculosis and Health Association, Orlando, April 2 and 3.

(3) Assisted in bringing to Florida Dr. J. Arthur Myers, of Minneapolis, Medical Director, Lymanhurst School and member of editorial boards of the American Review of Tuberculosis and Journal-Lancet, to address medical and semi-lay groups.

(4) Increased from 400 to approximately 800 the list of Florida physicians receiving tuberculosis abstracts, a resumé of test papers on tuberculosis as a courtesy of the Florida Tuberculosis and Health Association.

(5) Acted as technical advisors for the Florida Tuberculosis Board (appointed by Governor Sholtz May 1, 1934).

(6) Acted as technical advisors for and passed upon material to be distributed by the Florida Tuberculosis and Health Association to medical, lay and semi-lay groups. Rejected as not desirable one pamphlet on cost of medical care.

(7) Recommended a Tuberculosis Committee for the Florida State Medical, Dental and Pharmaceutical Association (Negro medical association.)

(8) Given pneumothorax and tuberculin testing demonstrations at tuberculosis institutes for nurses sponsored by the Florida Tuberculosis and Health Association.

(9) Arranged for speakers on programs of local medical societies and tuberculosis associations.

In addition, the chairman of this committee has acted as official representative of the Medical Association on the Board of the Florida Tuberculosis and Health Association and as advisor to the Board and Executive Committee, and the Committee:

1. Is working out with educators and pediatricians a plan for a school health education program to be submitted for approval to the Florida Medical Association.
2. Making preparations for a pathological exhibit on tuberculosis to be used before semi-lay groups.

Respectfully submitted,

M. JAY FLIPSE, Chairman;
ARNOLD S. ANDERSON,
WILLIAM C. BLAKE,
T. Z. CASON,
J. MAXEY DELL.

(Editor's Note: The above report from the Committee on Tuberculosis and Public Health was not read before the First General Session at the Annual Meeting of the Association, held in Ocala in May. The Committee report has just been received with the request that it be published in the Journal).

PROCEEDINGS OF SIXTEENTH ANNUAL MEETING FLORIDA RAILWAY SURGEONS' ASSOCIATION, OCALA, MAY 13, 1935

The Sixteenth Annual Meeting of the Florida Railway Surgeons' Association convened in the Dixie Theatre, Ocala, at 10:30 a. m., May 13, 1935. After the Roll Call, the Minutes of the last meeting were read. This was followed by Committee Reports and the Address of the President, Dr. Walter C. Page of Cocoa.

At 12:00 o'clock, a luncheon meeting was held in the main dining room of the Marion Hotel.

The scientific program was held at 1:30 p. m. in the Dixie Theatre. The following papers were read and discussed.

"Organized Labor and Railway Medicine", V. A. Lockwood, St. Augustine.

"Treatment of Acute Injuries with Reference to Fractures", T. H. Bates, Lake City.

"Where the Field of the Oculist Meets That of the Practitioner", B. F. Hodsdon, Miami.

"The Handling of Brain Injuries", J. Maxey Dell, Jr., Gainesville.

"Surgical Errors", C. D. Christ, Orlando.

At 3:30 p. m., a business meeting was held. The president-elect, Dr. Leland F. Carlton of Tampa was inducted into office. The election of officers for the coming year was then held, which resulted as follows:

President—Leland F. Carlton, Tampa.

President-elect—T. M. McDuffee, Manatee.

Vice-President—J. Ralston Wells, Daytona Beach.

Secretary-Treasurer—H. D. Clark, Ft. Pierce.

* * *

The following committees have been appointed to serve the Florida Railway Surgeons' Association for the coming year:

Executive—
J. W. Alsobrook, Chairman, Plant City.
H. C. Dozier, Ocala.
T. W. Hutson, Miami.

Scientific—
A. R. Beyer, Chairman, Tampa.
Hugh West, DeLand.
H. A. Walker, Miami Beach.

Necrology—
Hubbard Gates, Chairman, Bradenton.
J. A. Strickland, St. Petersburg.
W. E. VanLandingham, West Palm Beach.

STATE NEWS ITEMS

Another high honor has come to a Florida doctor with the election of Dr. H. Marshall Taylor of Jacksonville to the presidency of the American Bronchoscopic Society at the annual convention of that organization in Toronto, Ontario, Canada.

This is the first time a Southern man has ever been accorded the distinction of heading the society, which was founded in 1917. Dr. Taylor was a vice president during the past year.

* * *

Preliminary information relative to next year's annual meeting, planned to be on board ship, will be found in this Journal on the editorial page and also among the advertisements in the back.

DR. JOHN A. B. SINCLAIR

On May 19th, 1935, Dr. John A. B. Sinclair succumbed to a myocardial condition while a patient at the St. Francis Hospital, Miami Beach. Dr. Sinclair was 56 years of age. He had been practicing medicine in Miami for the past twelve years. He was a member of the Dade County Medical Society, and the American Medical Association. He was Medical Examiner for the Opalocka Naval Air Base and the Veterans' Administration, Bay Pines, Fla.

While being a very active man in his profession, he was both an adventurer and a naturalist. As an adventurer there were many occasions which required marked courage and great strength. As a naturalist he often shared studies of field work with Dr. David Fairchild and Dr. John Gifford and other authorities interested in tree life.

Dr. Sinclair had a very brilliant mind. He was educated in Charlottesville, Virginia, and after graduating from the State University there became the youngest professor that institution has ever had, teaching Anatomy at the age of nineteen. He took his medical degree at Johns Hopkins, and served his internship at Bellevue Hospital, New York, returning to Charlottesville where he practiced until 1908 when he received a commission as a medical officer in the United States Navy. He was first stationed with the Navy in Alaska as head of the Naval Hospital at Sitka. During the World War he served as medical officer on the transports Von Steuben and Zeelandia. He made seventeen crossings to France and attained the rank of Lieutenant Commander. At the close of the War he was again returned to Alaska where he was in charge of the hospital in Chicagof. In 1923 he moved to Miami and had been in active practice since that time.

Dr. Sinclair, in addition to his medical post here, was vice-president of the Miami Aero Club, a member of the Army and Navy Club and the Harvey Seeds Post, American Legion.

He is survived by his mother, Jean F. Sinclair; three daughters, Mrs. J. Sinclair Shafer, Mrs. Shannie Holloway of New York, Miss Glenna Sinclair of Miami; a son, Robert Upton Sinclair; two grandchildren, two brothers, and four sisters.

COMPONENT COUNTY SOCIETIES

DADE COUNTY MEDICAL SOCIETY

At the meeting of the Dade County Medical Society held June 7 in the Huntington Club Rooms, Miami, the scientific program consisted of a case report presented by Dr. Walter C. Jones, Jr., and a paper by Dr. Marvin Smith, entitled "Partial Stomach Resection After the Method Advocated and Practiced by Professor Finsterer of Vienna."

DUVAL COUNTY MEDICAL SOCIETY

The regular meeting of the Duval County Medical Society was held at the George Washington Hotel, Tuesday, June 4. At this meeting, Dr. W. McL. Shaw was named president-elect of the Society. Doctor Shaw will take over his duties as president in January.

The Society went on record as approving the offer of the Jacksonville Bar Association to have its members present at the polling places in the city and county for the special election on the proposed city-county consolidation, held June 18.

MONROE COUNTY MEDICAL SOCIETY

THE MONROE COUNTY MEDICAL SOCIETY HAS BECOME THE FOURTEENTH SOCIETY TO PAY 100% OF MEMBERSHIP DUES FOR 1935. THE OFFICERS OF THIS SOCIETY ARE:

President—HARRY C. GALEY.
Vice-President—NILO C. PINTADO.
Sec'y-Treasurer—WILLIAM R. WARREN.

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ADVERTISERS' NOTES

The Treatment of Wounds

A modern writer on surgical matters has recently remarked that it is impossible to discuss the non-opperative treatment of wounds without acknowledging the fundamental importance of proper preliminary surgical treatment. The application of an antiseptic may be considered as supplementary to asepsis, operative cleansing of wounds, with removal of foreign bodies, excision of traumatized tissue, and establishment of proper drainage.

For topical application an antiseptic should be used which will not destroy viable cells. The antiseptic should permit of frequent application, without danger of systemic action. It should so cover the intact epidermis surrounding the wound as to exclude these areas as possible sources of reinfection.

Merthiolate, Lilly, will, it is claimed, capably fulfill the specifications for the antiseptic as here outlined.

Merthiolate Solution, 1:1,000, is an aqueous, stabilized, isotonic dilution which is stainless (No. 45). Merthiolate Tincture, 1:1,000, is an alcohol-acetone-aqueous solution which contains a harmless coloring matter and delineates treated areas (No. 99). Merthiolate Tincture and Solution are supplied in four-ounce and pint bottles.

Merthiolate Ointment, 1:2,000, is supplied in one-ounce tubes and pound jars (No. 59); Merthiolate Ophthalmic Ointment, 1:5,000, in one-dram tubes (No. 31); Merthiolate Cream, 1:1,000, in one-ounce tubes; and Merthiolate Jelly, 1:1,000, in half-ounce tubes.

Abstract—Philip Morris Co.

Flinn, Frederick B.—Some Clinical Observations on the Influence of Certain Hygroscopic Agents in Cigarettes. Laryngoscope, 1935, XLV No. 2, 149-154. Mulinos & Osborne (Proc. Soc. Exper. Biol. and Med. 32: 241-245, 1934) using rabbits showed the edema caused by cigarettes using diethylene glycol as hygroscopic agent to be less than that from cigarettes using glycerine. Flinn reports a number of clinical observations. In cases showing congestion of some portion of the mucous membrane of upper respiratory tract as result of smoking glycerine treated cigarettes, on smoking cigarettes containing diethylene gly-

col, congestion disappeared in 62.3 per cent and considerable improvement noted in other 37.7 per cent. On returning to glycerine treated cigarettes 80 per cent showed a return to the congested condition of the pharynx and larynx. Coughs and irritation of the tongue showed analogous results. "Summary: The combustion products of glycerine when it is used as a hygroscopic agent in cigarettes will under certain conditions cause an irritation of the throat. The combustion products of diethylene glycol cause only a slight irritation, if any, of the throat. There is some evidence that they may be beneficial where irritation is present."

Ivy and Oak Poison

Poison Ivy and Poison Oak Season is usually at its height from May to November. Many more cases of ivy and oak poison occur during the summer because persons go into the country and are thus exposed to the disturbance although many cases of poison ivy occur during fall and winter months due to handling of fire wood on which the roots and tendrils of poison ivy are collected on the bark of the wood.

Rhus Tox Antigen (*Poison Ivy Antigen*), *Rhus Venenata Antigen* (*Poison Oak Antigen*), offer specific cures for the treatment of persons afflicted with these most distressing irritations causing dermatitis venenata.

In the Eastern and Middle States Poison Ivy from Rhus toxicodendron causes over 90 per cent of the dermatitis. In Rocky Mountain and Pacific Coast States the reverse ratio holds true for Poison Oak (Rhus venenata, Rhus diversiloba) and for that reason the two antigens are not combined.

No ointment of a greasy base should be used as a local application in the treatment of dermatitis venenata because grease or oils dissolve the toxicodendric acid and increases the dermatitis. A good routine in treatment, after injecting the Antigen, is to scrub the affected area with alcohol, providing the skin is not broken, wash with castile soap and water, dry the parts then apply a stearate base ointment, containing benzocaine, phenol, camphor and boric acid, for routine local treatment.

Rhus Tox and Rhus Venenata Antigens for the cure (desensitization) of ivy and oak poisons are 40% alcoholic solutions of the *antigenic principles* to which is added procaine to make 0.4 per cent strength; this, together with refinement in processes, minimizes smarting and pain of injection.

Antigens in oil solutions are to be avoided because the unabsorbed oil causes marked local tissue change which may bring about tumefaction or even malignant complications. Jorstad and Glenn, *Journal Amer. Med. Asso.*, Jan. 7, 1928. *The Medical Times.* June—1928, 23.

Dosage

The Antigens should be injected deep intramuscularly. Intramuscular injections lessen irritation and are quickly absorbed. *Do not massage injected area after injection of the Antigen. Superficial injections will cause local reactions with a localized dermatitis.*

First dose ½ to 1 cc. of the Antigen; *second and subsequent doses* 1 cc. of the Antigen at 12 to 24 hour intervals.

For Complete Treatment four injections of the specific Antigen are advised even though the dermatitis is brought under control after the first or second injection. This procedure may give protection to the patient for the season and prevent, or at least, modify subsequent attacks.

The Antigens are prepared by The Mulford Colloid Labs., and furnished in packages containing 2 one cc. Syringes with 2 sterile needles and in packages containing 4 one cc. Ampul-vials.

Literature will be mailed on request by The National Drug Co., of Philadelphia.

Present Status of Mead Johnson Vitamin A Research Award

This award was originally established by Mead Johnson & Company January 30, 1932. "Mead Johnson & Company announces an award of $15,000 to be given to the investigator or group of investigators producing the most conclusive research on the vitamin A requirements of human beings." (See J.A.M.A., January 30, 1932, pages 14-15.)

On February 11, 1933 (J.A.M.A., pages 12-13), "At the suggestion of the judges, a second (additional) award of $5,000 is now offered. The basis for this enlargement is in the obvious possibility that within the time limit set (Dec. 31, 1934), no suitable evaluation of the vitamin A

requirements of human beings will have appeared. On the other hand, a laboratory investigation may have been published which will point the way toward clinical evaluation."

On that date, the judges for the award were announced:

Issac A. Abt, Northwestern University; K. D. Blackfan, Harvard University; Alan Brown, University of Toronto; Horton R. Casparis, Vanderbilt University; H. F. Holmholz, Mayo Clinic; Alfred F. Hess, Columbia University; E. V. McCollum, Johns Hopkins University; L. B. Mendel, Yale University; L. T. Royster, University of Virginia; and Robert A. Strong, Tulane University.

The judges met in Detroit, April 10, 1935, and took the following action:

(1) To postpone until December 31, 1936, awarding of the main (Clinical) Award.

(2) To divide the second (Laboratory) Award, one-half to Dr. S. B. Wolbach, Harvard University, for his basic work on the pathology of avitaminosis A and his investigations on the regeneration of epithelial tissue impaired by vitamin A deficiency, and the relationship of vitamin A to the integrity of the teeth; and one-half to Dr. Karl E. Mason, Vanderbilt University, for distinguishing exactly between the pathology of avitaminosis A and avitaminosis E, and for his contribution to the quantitative relationship of vitamin A deficiency to the keratinization of germinal epithelia.

Some of this original work is still in press.

Checks for $2,500 each, in accordance with the decision of the Judges, were promptly mailed by Mead Johnson & Company to Dr. S. B. Wolbach and Dr. Karl E. Mason.

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A very interesting and instructive booklet on food values and nutrition has been prepared, covering particularly the newer knowledge of vitamin and mineral metabolism.

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Borden Abstracts

SUMMARY OF MAY ISSUE

The association of vitamin D with milk enhances the value of the antirachitic factor, as shown by the clinical test reported in Abstract No. 54, in which it is stated that a crystalline vitamin D in milk was superior to the same product in oil for the cure of infantile rickets.

Comparison of the clinical efficacy of irradiated vitamin D and vitamin D milk from cows fed on irradiated yeast showed that these two products gave similar results in the cure of rickets when 50 Steenbock units of the irradiated and 60 to 65 units of the "yeast" milk were fed to rachitic infants.

This study is outlined in Abstract No. 55, while in Abstract No. 56 there is a summary of an editorial on the general value of vitamin D milk and its proper use by practising physicians. Much attention is likewise given to vitamin D milk in the book reviewed in Abstract No. 63.

Lactose, or milk sugar, is stated in Abstract No. 57 to be more conducive to healthful growth, the development of proper body weight, and longevity than is sucrose, as shown by the experimental feeding of young animals.

Casein, the chief protein of cow's milk, acts as a deterrent on the growth of certain intestinal parasites. Milk is, therefore, a valuable factor in the treatment of these conditions, as described in Abstract No. 58.

The advantages of powdered milk for military as well as general use are set forth in Abstract No. 59.

Diagnostic methods for the detection of undulant fever are outlined in Abstract No. 60.

The 1934 Year Book of Pediatrics is reviewed in Abstract No. 61.

The second edition of a standard book on nutrition is the subject of a review in Abstract No. 62, while the Proceedings of the last annual meetings of the New York and Pennsylvania Associations of Dairy and Milk Inspectors are reviewed in Abstracts Nos. 64 and 63, respectively.

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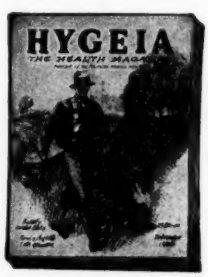

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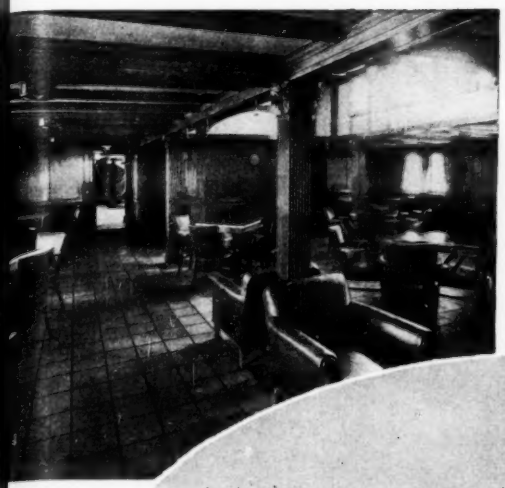

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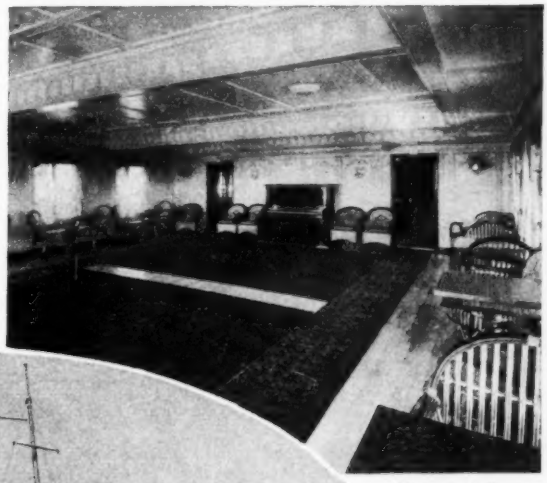

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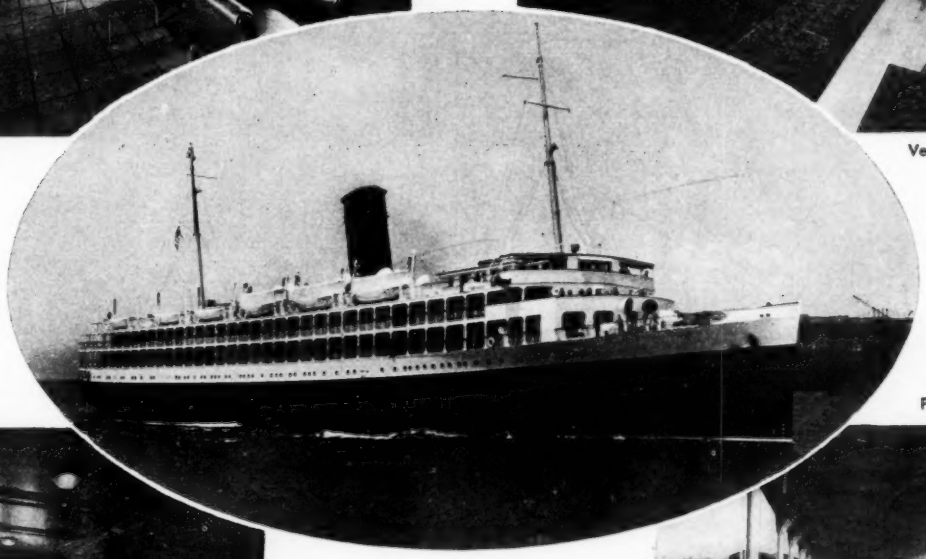

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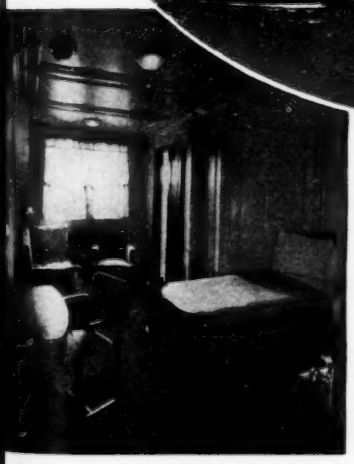

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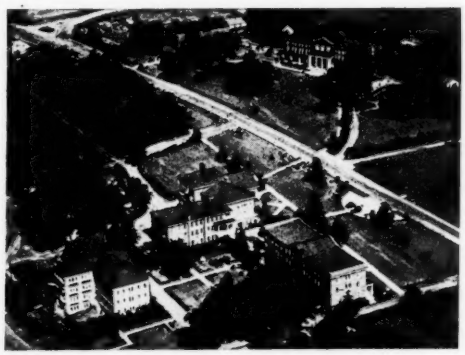

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ACCEPTED AMERICAN MEDICAL ASSN. Committee on Foods

HIGH IN FOOD-VALUE
—low in price

COCOMALT is available in 5-lb. cans, at a special price, for hospitals and other institutions.

This delicious food-drink is high in caloric value—rich in Vitamin D—easily digested and quickly assimilated. Mixed with milk as directed, it adds 70% more food-energy value. It increases the protein content 50%, carbohydrate content 170%, calcium content 35%, phosphorus content 70%.

Cocomalt is accepted by the Committee on Foods of The American Medical Association. Prepared by an exclusive process under scientific control, Cocomalt is composed of sucrose, skim milk, selected cocoa, barley malt extract, flavoring and added Vitamin D (irradiated ergosterol). (30 Steenbock—81 U.S.P. revised—units of Vitamin D per ounce of Cocomalt.)

Sold also in ½-lb. and 1-lb. air-tight cans, at grocery and drug stores.

Free to Doctors

For a sample can of delicious Cocomalt, send your name and address to R. B. Davis Co., Dept. S-46 Hoboken, New Jersey.